PERINATAL SERVICE LINE
NEONATAL DEPARTMENT
KAISER PERMANENTE – VALLEJO

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SOC/SOP: BREAST FEEDING MANAGEMENT FOR TERM AND PRETERM INFANTS

QUICK LINKS: Policy, Management for Term Infants, Management for Preterm Infants, Pumping Procedure, Breastmilk Storage and Handling, Engorgement, Plugged Ducts, Mastitis, Sore Nipples, Alternative Feeding Methods

I. POLICY STANDARD

Departmental procedures related to Breastfeeding, and feeding in general, will be implemented with the goal being accurate and consistent instructional content within an environment of encouragement and support, regardless of the feeding method chosen by the mother.

A. PROCEDURES:

1. The decision whether or not to breast-feed should be an informed choice made by the mother. Information regarding the benefits of breastfeeding for the first 4 to 6 months shall be included in prenatal obstetrical visits and prenatal educational programs (outpatient).
2. All mothers who plan to breast feed should be helped to get their infants to breast within the first hour of life, unless medically contraindicated.
    a. Nursing staff shall offer each mother assistance to initiate breastfeeding when the baby appears ready.
    b. Each C-section birth mother will be assisted to breastfeed as soon as the baby is stable and the mother is able to interact with her baby.
    c. Every attempt will be made to keep the mother and infant together unless medically indicated, otherwise.
3. Mother-infant dyads will be encouraged and supported to room in together on a 24-hour basis.
4. Nurses will instruct mothers in proper breastfeeding techniques for positioning and latching-on and will evaluate at least one breastfeeding per shift or until the mom and baby have demonstrated an independent LATCH.
    a. Nursing staff will assess each mother/infant and offer further assistance with breastfeeding within the shift following admission to the postpartum unit.
    b. Nursing staff will evaluate mother and baby for evidence of milk transfer during breastfeeding and for symptoms of lactation problems. A systematic assessment guide will be used for this evaluation at least once every eight hours. (LATCH)

c. If breastfeeding is assessed as ineffective or incomplete after 2-3 feedings, the mother will be instructed to begin expressing her breasts in conjunction with continued assistance by the staff. The colostrum or milk obtained by expression should be given to the baby, (see Policy and Procedure for Expressing and Storage of Breastmilk).

d. Mothers who continue to have problems with breastfeeding should be referred to the Lactation Consultant.

5. Mothers will be encouraged to breastfeed on demand.

a. Mothers will be taught to recognize the baby's early hunger cues.

b. The mother/infant dyad will be encouraged to nurse 8 to 12 times or more in 24 hours. Feeding time will not be limited as long as position is correct and mother is comfortable. Mothers will be encouraged to allow the baby to finish nursing the first side, then to offer the second breast.

c. Mothers will be taught the signs that the baby is nursing effectively, and "getting enough".

6. Mothers will be taught techniques to prevent sore nipples and sore breasts, how to treat those problems, how to manually express breastmilk, and how to maintain lactation when the mother and infant are separated.

7. Breastfeeding infants will not receive supplementary water, glucose water or formula unless there is a documented medical reason and maternal consent (documented).

8. Mothers who request supplemental feedings for their infants will be given a limited amount of formula (about 15ml), if still desired, after counseling and teaching of normal breastfeeding management.

a. Parents who request their infants receive bottle feedings will be advised of the special benefits of breastfeeding.

9. Pacifiers will not be offered to well infants who are breastfeeding unless requested by the mother. The use of artificial nipples is discouraged.

10. At discharge, breastfeeding mothers will be given follow-up appointments for their babies within 1-3 days with appropriate care providers.

11. Breastfeeding mothers will be given referral information for lactation support upon discharge. Solano County patients may phone the Newborn Club at Kaiser Vallejo Medical Center. (707) 651-KLUB. Newborn Club nurses are Certified Lactation Educators who can provide breastfeeding advice, observe a feeding, and answer any questions. For additional references, please refer to the Kaiser Permanente Northern California Region Napa/Solano Service Area Resources for Breastfeeding Families. Patients may phone their local Le Leche League for support as well.

II. BREASTFEEDING MANAGEMENT FOR THE TERM NEWBORN INFANT

A. PURPOSE:

To outline basic breastfeeding management and to provide current, consistent information and assistance in order to support breastfeeding mothers.

B. SUPPORTIVE DATA:

Breastfeeding is a normal physiologic process, which promotes infant and maternal wellness. Breastfeeding is supported and encouraged by the Perinatal Division, Pediatric and Obstetric Departments as the optimal method of infant feeding during the first year of life.

It is desirable to initiate the first breast feeding soon after delivery. The newborn is usually alert and willing, which boosts maternal confidence and offers an opportunity to provide colostrum to the infant. Early colostrum helps minimize the possibility of hypoglycemia, stimulates meconium passage, protects against excessive weight loss, and provides initial antibodies. Early, lengthy and frequent suckling also stimulates hormonal responses necessary to increase maternal milk volume and lessen engorgement. Proper "latch" attachment and position are critical. This avoids maternal nipple trauma and provides the mechanism necessary to milk the lactiferous sinuses and massage the milk from the nipple. It is also critical to evaluate "latch"/ "attachment" techniques and identify problems; swift interventions build maternal confidence and contributes to the success and duration of breastfeeding

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C. INTERVENTION:

1. Initiate breastfeeding as soon as possible following birth, especially if the infant is in an alert state and showing signs of readiness to feed.
2. Instruct and assist mother in proper positioning and latch techniques.
3. Separate mother and infant as little as possible to facilitate frequent feedings.
4. Instruct mother to attempt to awaken sleepy newborn infants for feedings if they have not fed for three hours. Demonstrate appropriate techniques to awaken, such as, talking, skin-to-skin contact, diaper change, rolling infant side-to-side, or burping infant.
5. Instruct mother to put the baby to the breast frequently, up to 10 to 20 minutes on each breast or longer if baby is nursing well without maternal pain. (If nursing is painful, recheck latch.) Babies need at least 4 feedings in the first 24 hours, 6 or more feedings during the second 24 hours, and 8 or more feedings each day after that. Feedings may not be evenly spaced. Okay to feed on only one breast if infant fed will and is uninterested in feeding from second breast. Start feeding on alternate sides.
6. Instruct mother in hand expression techniques.
7. Give supplementary feedings only when medically indicated or at the request of -glucose water are not recommended. If not medically indicated educate the mother on the potential effects on establishing successful lactation.
8. Instruct breastfeeding mothers whose infants are unable to breastfeed how to initiate lactation through the use of an electric breast pump. Pump should be used every 3-4 hours or at least 8 times every 24 hours, when infant is not at the breast. Feed the infant any collected milk. Instruct in cleaning of pump equipment, labeling, and milk storage (see Teaching Protocol for use of the Electric Breast Pump).
9. Instruct breastfeeding mothers who are separated from their infants and unable to breastfeed their infants how to maintain lactation through the use of an electric breast pump. Begin as soon as possible after delivery and continue every 3-4 hours or at least 8 times every 24 hours. Instruct in cleaning of pump equipment, labeling, and milk storage (see Breastmilk pumping procedure & Breastmilk storage.)
10. Avoid use of pacifiers; they interfere with nutritive suckling. Teach finger pacifying instead
11. Instruct mothers with flat or inverted nipples to roll and stretch nipple prior to feeding if infant in unable to latch on. If this technique is not effective, offer breast pump prior to feeding and recommend use of breast shells (see Breastfeeding: Inserted Nipple Procedure).
12. Refer the following to the Lactation Educator: The infant who is reluctant to breastfeed, the infant having difficulty with latching correctly, the mother with flat, inverted, traumatized or painful nipples, or a mother who has a previous history of breastfeeding problems, or previous breast surgery.

D. CONTENT:

1. “Latch”
• Initiate the first breast feeding and latching in Labor and Delivery Recovery within 1 to 2 hours of birth.
• Repeat attempt to “latch” in the postpartum unit within the next 2-3 hours.
2. Positions:
• Cradle across the lap—standard position for breast-feeding. (Cross cradle for neonates.)
• Side lying—preferred position for mother’s unable to sit upright (cesarean section or sore perineum).
• Football—preferred for mothers with tender abdomen (cesarean section or tubal ligation).
3. Attachment techniques:
• Support breast in the “C” hold with four fingers under the breast and the thumb on top.

• Tickle infant's lip with the nipple. When mouth opens widely, and tongue is down, insert nipple and latch the infant on to the breast.
• Check placement. Infant should have a mouthful of the areola in his/her mouth. The lips should not be folded in. Mother's fingers should be off the areola. Swallowing should be noted.
• Some women experience initial discomfort with "latch"/attachment that should subside after the first couple of minutes.
• Remove from the breast if positioned incorrectly or nursing is painful. Break suction by inserting a small finger in the corner of the infant's mouth. Remove from the breast and repeat attachment techniques.
4. Attachment assessment:
• Assess visually and document on Normal Newborn Clinical Pathway and using the Latch scoring Table Record that initial "latch" has successfully occurred.
• Assess visually and document attachment techniques once a shift.
• Increase frequency of visual attachment assessments if infant and/ or mother are experiencing problems.
• Identify "latch"/ "attachment" problems.

-Flat or inverted nipples
-Abnormal sucking patterns:
*Tongue thrusting
*Short frenulum
*Engorgement
*Sleepy infant
*Sore nipples
*Maternal knowledge deficit

5. Frequency and length of feeding:
• Encourage frequent breastfeeding. Babies need at least 4 feedings in the first 24 hours, 6 or more feedings in the second 24 hours and eight or more feedings each day thereafter. (Feedings may not be evenly spaced.) Time feedings from the beginning of one feeding to the beginning of the next feeding.
• Suggest up to 10-20 minutes of active suckling per breast. As long as infant is correctly positioned, it is not necessary to limit the length of feeding. Instead, watch for slowing of suck-swallow pattern or for baby to let go of the breast.
6. Breast/Nipple care:
• Encourage lubricating nipples with colostrum or expressed breast milk. If necessary use a purified lanolin cream.
• Avoid applying soap directly on the nipple (may cause drying).
• Encourage mother to wash her hands, not the breast prior to feeding.
• Suggest hand expression of colostrum onto nipples after nursing.
• Suggest changing moist breast pads to avoid nipple/breast irritation.
• Suggest wearing a supportive bra that is appropriately sized. (no underwires)
• Remove the bra for some feedings.
7. When to arrange for initial consultation with lactation educator:
• At mother's request.
• If latching on or sucking poorly.
• For abnormally shaped nipples.
• Unresolved problems with previous breastfeeding experience.
• Excessive weight loss—10% or greater.
• Babies 37 weeks or less gestation
• Mothers with a history of breast surgery or trauma, or surgical scarring.
• For damaged nipples when nurse cannot alleviate.

E. ASSESSMENT (LATCH)

1. Latch: Assess infant at breast for correct mouth position and latch-on each shift and before discharge. Nipple should be drawn well into infant's mouth, so that the tongue massages the areola tissue. Infant's lips should be flanged, and rhythmic sucking should occur. Jaw movement should occur, without the cheeks being drawn in.
2. Audible swallows: Swallows may be few, needing stimulation, or spontaneous, either intermittent or frequent.
3. Type of nipple: Nipples should be assessed for shape, size, and texture. Inverted nipples, nonprotruding nipples, large nipples and nipples with inelastic tissue should be assessed and monitored for trauma. Infants may have difficult feeding from these nipples. Mothers may require more help with breastfeeding.
4. Comfort level: Observe for the presence of pain during or after breastfeeding once each shift. Examine mother's breasts and nipples once each shift to check for engorgement, or signs of trauma.
5. Hold: Assess mother's ability to comfortably position and latch infant herself. Pain during entire feeding is not normal

F. REPORTABLE CONDITIONS:

1. Notify pediatrician for lethargic infant who cannot be awakened to feed despite several attempts, or who is unable to tolerate feedings.
2. Notify obstetrician for mother with unusual lesions or exudate from nipples, or with any unusual lumps or redness in the breast.

G. SAFETY:

1. Position infant on back after feeding.
2. Keep bulb syringe in crib.

H. PATIENT/FAMILY TEACHING:

1. In addition to the above, instruct patient to call health provider when:
    a. Baby is having fewer than 6-8 wet diapers in 24-hour period after 6 days of age.
    b. Fewer than 1-2 stools are passed per day in the first month.
    c. No swallowing is heard while baby is at breast once milk comes in.
    d. Infant appears jaundiced.
    e. Infant had dry lips and mouth.
    f. Infant is very sleepy.
    g. Infant is very irritable.
2. Teach mothers how to burp infant—demo and return demo.
3. Instruct mothers to vary their infant's position at the breast by using the football hold, side lying hold, as well as the cradle hold, in order to vary pressure on nipple and promote drainage of all ducts.
4. Advise mothers how to manage engorgement and plugged ducts through frequent feeding, warm showers or compresses, massage of breast, and avoidance of bras with underwires. Refer to Breastfeeding: Engorgement.
5. Advise mothers how to manage sore nipples through maintaining a correct latch, frequent feedings, and using breast shells, she should express few drops of colostrum on the nipples to dry after feedings.
6. Teach mothers to drink adequate amounts of fluid, with the advice to drink so they are not thirsty and eat a well balanced, varied diet including about 500 additional calories per day.
7. Instruct mother to call health provider if she has a fever (>101 degrees Fahrenheit) and a hot, red, tender breast. She should continue frequent breastfeeding, keep breast well drained, and follow instructions for plugged ducts.
8. Instruct breastfeeding mother to avoid alcohol and substance abuse to minimize or avoid tobacco use. Refer questions regarding the use of prescription and over-the-counter medications to Lactation Educator or infant's pediatrician.
9. Inform patient of normalcy of infant "growth spurts" These often occur at 10 days to 2 weeks and every 4 to 6 weeks thereafter. During growth spurt's infant's need to feed frequently is increased for 48-72 hours.

I. DOCUMENTATION:

Document the following on the Newborn Patient Care Flow Record:

• LATCH score per Documentation guidelines, any difficulties or unusual conditions, referrals made.

III. MANAGEMENT FOR PREMATURE INFANTS

A. PURPOSE:

To outline breast feeding management for the premature neonate (36 weeks or younger).

B. SUPPORTIVE DATA:

Breast-feeding is a skill that premature infants can learn somewhat earlier than bottle-feeding. Studies have shown that the infant can maintain oxygen saturation, p02 and pC02 levels at a more stable or even improved level during breast-feeding than during bottle-feeding. Due to the fact that mothers cannot come to the NICU for every feeding, and that the infant might not be able to totally breast feed, the breast feeds may be combined with gavage feeds. To assist the infant in retaining the skill to nurse, bottle-feeding may be delayed for a period of time.

C. CANDIDATES: Consider as candidates for breastfeeding the following:

1. Infants, who are vigorous, stable enough to be handled and can begin enteral feeds or are tolerating enteral feeds already by gavage. They must be able to suck on a pacifier and swallow their secretions. Generally they are 32 weeks and older.
2. Infants must have stable respiratory function. Infants still receiving oxygen usually do better with nasal cannulas.
3. Infant must be clinically stable.
4. Infant must have doctor's order to begin breast-feeding.

D. INTERVENTIONS:

1. Discuss with mother the plan to initiate breastfeeding and teach her about feeding cues.
2. Provide for privacy as is possible and allow mother and baby a few minutes of skin to skin contact to elicit alertness and readiness.
3. Keep patient on cardiorespiratory monitors, unless infant has proved himself already and breast feeds well, or unless the nurse can observe the infant with adequate lighting during the entire feeding, and afterwards during maternal/parent holding time.
4. Assist mother to a comfortable chair with arm supports and enough pillows to place the infant at breast height.
5. Position infant on pillow level with the mother's nipple.
6. Instruct mother to hold infant's back and head with the hand. The other hand will guide and form the areola so that the infant can grasp the nipple.
7. Instruct mother to hold the breast during the entire feeding, due to the infant's small mouth.
8. Decrease other stimuli such as noise, stroking, rocking, and light (if possible).
9. Allow the infant time to initiate sucking. Gazing, licking, and small sucks normally precede a latching on. You may gently pull down on the chin with a finger if the infant is not opening his/her mouth well. Be patient. The milk ejection reflex takes a minute to several minutes to begin.
10. Assist the mother in relaxing. Remind her to relax especially the arms and shoulders. Gently stroking down the shoulder and arms gives a powerful and effective massage.
11. Observe infant for signs that that the areola is being drawn into the mouth and that the nipple is not under the tongue. As the milk ejection begins, observe the infant for swallowing, and a slowing of the sucks, as the non-nutritive suck changes to the nutritive suck. Observe for signs of:

a. A mature suck with burst of 10-30 rhythmic sucks of one to one sucking/swallowing and uninterrupted breathing.

b. Immature suck with burst of 3-5sucks with breathing before or after bursts

c. Disorganized sucks with bursts of non-rhythmic sucking, irregular respiration and signs of apnea.

12. Allow the infant to nurse ad lib (i.e., do not limit time) unless the infant is showing signs of stress or fatigue
13. Offer the second breast after a rest/burping time.
14. Ask mother to come in more frequently, as infant becomes more competent at breastfeeding.
15. Allow total feeding time flexibility. Breastfeeding sessions frequently longer than bottle feeding sessions: infant independently paces breastfeeding session, sucking, and pausing as individually necessary. Breastfeeding infants integrate nutritive sucking, rest period and social behavior, thereby lengthening overall feeding time.

E. SUPPLEMENTS:

1. Do not offer supplements if the infant nurses well and appears satiated, or as ordered by physician.
2. Gavage entire feeding when infant has only licked or taken few sucks from the breast.
3. Gavage ½ of the feeding if the infant still appears hungry or has nursed only moderately well (less than 5 minutes).
4. Gavage should be done 15-30 minutes after nursing, and can be done while the mother is holding the infant. If the mother is not available, gavage feeding can most effectively be done with the baby being gently swaddled and cuddled by the nurse for gavage feeding and burping.

F. BOTTLE FEEDS:

1. Begin bottle feeding those babies whom cry, squirm, gag, and resist the gavage feeding after discussing this with the mother and doctor. The mother may be able to come in for more breast feedings, or may wish to plan an overnight stay.
2. Do not routinely supplement breast feedings with bottles after nursing unless mother is producing insufficient milk for one feeding.
3. Request the assistance from a lactation specialist, or a nurse skilled in working with preemie breast feeding to work with mother-infant couple if the infant is having trouble obtaining milk from the breast.
4. Request overnight stay when the infant appears capable of breast feeding all feeds. Overnight is offered to mom of long-term preemie at discharge.

G. DOCUMENTATION:

Document the following on the NICU/IMN Pt. Care Flow Record:
- Ability of infant to latch on the breast
- Presence, if any, of audible swallowing
- Quality of sucking
- Response of infant to feeding
- Teaching done with parent

IV. PUMPING PROCEDURE

A. PURPOSE:

To outline the nursing responsibilities in assisting the mother to express her breast milk when her infant cannot nurse, or in not nursing effectively.

B. SUPPORTIVE DATA:

Breast milk is a diet of choice for the vast majority of infants. Refer to “Breastmilk Storage and Handling Procedure”.

C. EQUIPMENT LIST:

1. Breast-pump collection kit (Double collection kit for mothers of premature babies and full term babies who need long term pumping. If 3 weeks or greater is anticipated).
2. Sterile bottles with caps
3. Hospital quality electric breast-pump.

D. CONTENT:

1. Wash hands before procedure. Instruct mother that a daily show is sufficient for her to maintain breast hygiene.
2. Assist mom to upright sitting position.
3. Apply warm, wet compresses to mother's breast before each pumping, if desired. Warm soaks will help stimulate the milk to let down and start flowing. Could run warm water into disposable diapers and place one over each of the mother's breasts for a few minutes or use a warm wet towel.
4. Assemble collection set using sterile bottles and clean equipment.
5. Instruct mother to position collection devices on breast. Bottle should be upright and the tubing should be horizontal so the milk will be into the bottle rather than into the tubing.
    a. Do not touch the inside of the flanges.
    b. Use the nipple adapter if the mother's nipples are small in diameter.
    c. Center the nipple in the inner flange opening.
    d. Hold the flange snugly on the areola so there is no air leakage around it.
6. Set and keep the suction level at minimum for the first 2 or 3 pumping then increase suction levels gradually as tolerated by the mother. Will help prevent nipple soreness.
7. Instruct mother to pump breast for about 5 to 7 minutes on each side. Repeat if milk is still flowing. Discontinue when milk droplets have ceased flowing for 2 consecutive minutes. May gradually increase to 10 minutes per breast. Mother may not be able to express any milk for the first few pumping.
8. Instruct mother to pump 8-10 times in each 24 hours if the baby is nursing. To establish and maintain adequate milk production.
9. Encourage the mother to pump her breasts after breastfeeding if baby needs to be supplemented or is breastfeeding poorly. Pumping can be done immediately after the breastfeeding. The expressed milk may be given as soon as it is pumped, or stored per "Breastmilk Storage and Handling Procedure" and used at the next supplemental feeding.
10. Cap and label bottles with infant's name and medical record number. Include the time and date of pumping.
11. Wash equipment thoroughly with hot water and all-purpose soap. The tubing and air filter should not come in contact with water or breast milk so they do not need cleaning.
    a. Wash all equipment parts that come in contact with breast or breast milk.
    b. Allow equipment to air dry between uses.
12. Replace collection set every 2 weeks. Replace kit sooner if tubing or filter become wet with milk.
13. Store breast milk in refrigerator or freeze it. Unrefrigerated, fresh breast milk can be safely left at room temperature for up to 2 hours before feeding or refrigerating. However, prompt refrigeration is recommended.
14. Instruct mother to transport fresh refrigerated breast milk to hospital within 24 hours or freeze it.
15. Instruct mother that if she is ill or taking medications he should consult with her Pediatrician before providing milk for her baby.

C. **PATIENT EDUCATION: EXPRESSING BREAST MILK FOR THE NEONATAL INTENSIVE CARE UNIT**

• **Wash hands before pumping.** This is the best way to make sure the milk is free from germs. Do not use soap on your breasts, as the skin will get irritated from the soap. A daily shower with water on the breast and nipples is sufficient.
• **Use clean equipment.** Parts that come into contact with milk should be washed with hot soapy water, rinsed well, and dried after each use. Equipment can be sterilized (by boiling in water 20 minutes) or washed in a dishwasher once a day. Use separate bottles each pumping.
• **Pump at least 6-8 times a day.** This will help your body make plenty of milk. Babies feed frequently. Pump both breasts about every 3 hours, for 10-12 minutes, or switch sides every 5 minutes if you are pumping one breast at a time.

• **Freeze milk that will not be used the same day.** Milk that will be used within 24 hours can be refrigerated and not frozen. Do not add pumping to already frozen milk to fill a bottle, unless it has been first chilled in the refrigerator.
• **Keep milk cold.** Keep the milk cold when transporting it to the nursery. Styrofoam containers or "blue ice" keep milk frozen well during transport. Wrapping towels around them also help keep milk frozen.
• **Get enough rest, food and fluids.** Your body needs to take care of you and your baby. Have something to drink while you pump, and drink fluids when your are thirsty. Eating enough food will help you have the energy to care for the baby and make milk. Rest in between visits with the baby. Please check with the lactation consultant or physician if you are taking any medication.

E. DOCUMENTATION:
Document on Nursing Record that mother has been instructed on "Breastmilk Pumping Procedures".

REFERENCE: Riordan & Auerbach, Breastfeeding and Human Lactation, 1997.

V. BREASTMILK STORAGE AND HANDLING PROCEDURE

A. PURPOSE:
To outline the steps for safe breast milk handling and storage for infants who are hospitalized.

B. SUPPORTIVE DATA:
Proper care must be taken at all stages of collection, storage, and administration of breast milk.

C. EQUIPMENT LIST:
• Refrigerator with thermometer
• Freezer
• Labels
• Sterile bottles with caps

D. CONTENT:

1. Storage of fresh breast milk:
a. Check that milk is labeled with patient's name, date and time pumped. If not, ask mother to label it.
b. Place bottles in baby's individual bin in refrigerator or freezer.
c. Discard any defrosted unused milk after 48 hours. Keep fresh, Unrefrigerated milk at room temperature for up to 2 hours, or refrigerate. Whenever possible, use fresh, not frozen breast milk to retain maximum nutritional and infection fighting properties.

2. Storage of frozen breast milk:
a. Store frozen breast milk at or below 32 degrees Fahrenheit until thawed for infant feeding.
b. Discard if not used in 6 months.
c. Store in refrigerator after thawing.
d. Discard any unused thawed milk after 24 hours
e. Rotate stock using oldest frozen milk first.

NOTE: Frozen breast milk retains many important antibodies, is nutritionally superior to commercial formula for feeding of premature infants, and should be used when fresh milk is not available.

3. **Preparation for feeding:**
a. Check label to verify baby's name and that milk has not been stored longer than the recommended time. Label bottle with time and date thawed.
b. Warm the milk to body temperature in warm water bath. Do not use microwave to warm milk.
c. Shake milk vigorously to redistribute the cream layer.
d. Discard any unused milk from a feeding. Do not refreeze milk once thawed.

4. **Reportable conditions:** Infants who have received stored breast milk from the wrong mother in error.
5. **Reporting and documentation process:**
    a. Notify unit manager or house supervisor immediately once the event has been discovered.
    b. Complete the Responsible Reporting Form
    c. Unit manager or house supervisor will notify Risk Management Significant event risk will be assessed and determined by Risk Management.
    d. Pediatrician on call to be notified of the event. Notification to be documented in the infants' medical record.
    e. Pediatrician to consult with Infectious Disease Physician regarding potential HIV. Hep B exposure and required labs.
    f. Parents of involved infant and mother who stored breast milk given in error to be notified of the event. Document discussion with family in the infants' chart focusing on the plan of action for the infant.
    g. Consent for blood work as determined by physicians. Document process in infants' medical record.
    h. Medical record of mother of wrongly given breast milk to be obtained and reviewed by the Pediatrician and Infectious Disease physician to assess for any potential health risks that may be of concern.

REFERENCE:

Jan Riordan and Kathleen G. Auerbach, Breastfeeding and Human Lactation, 2nd Edition. Boston: Jones and Bartlett Publishers, 1999. PP.452-465.
Kaiser Foundation Hospital, Vallejo; Responsible Reporting System, Administrative Policy & Procedure # 1021.
Kaiser Foundation Hospital, Vallejo; Communicating Unanticipated Outcomes, Administrative Policy & Procedure # 2113.

VI. ENGORGEMENT

A. PURPOSE:

To outline nursing responsibilities in the care of the breastfeeding mother-experiencing breast engorgement.

B. SUPPORTIVE DATA:

Engorgement is caused by tissue congestion and trapped milk. Engorgement may cause the nipples to flatten, making it difficult for the infant to latch on and breastfeed effectively. Infrequent feedings restricted sucking time and/or incorrect infant attachment contribute to engorgement. Engorgement usually occurs 2-5 days after delivery and may last 24-48 hours.

C. EQUIPMENT LIST:

-Washcloths, towels
-Basin or warm water
-Ice packs
-Electric breast pump
-Breast pump kit
-Tylenol or other pain reliever as ordered

D. PROCEDURE:

1. Assist patient with positioning of infant and latch as needed. Use pillows to assist positioning. Make sure infant latches on to sufficient tissue to transfer milk (see latch assessment). Patient comfort promotes letdown of milk. Tension inhibits oxytocin, hormone responsible for let down.
2. Encourage shower prior to feedings or apply moist heat to the breasts 5-10 minutes before a feeding with a warm, wet towel. Dip towel in basin of warm water to re-warm as necessary. Towels should be warm, not hot, to avoid burning skin. Moist heat is more effective than dry heat.

3. Prior to and during feedings, instruct patient to gently massage breast from outer edge of breast toward nipple. Prior to feeding, instruct in hand expression technique, to express enough milk to soften areola so that infant can attach properly. Avoid vigorous massage. The infant must compress the ducts behind the nipple to express milk.
4. Instruct mother to support the breast, varying infant's position at breast. Instruct regarding football hold, lying down, and cradle hold. Instruct patient to give both breasts each feeding. Each position may help empty different ducts. Football hold and lying down best empty the upper and lower portions of the breast, while cradle hold best empties the side of the breast.
5. Encourage mothers to feed frequently (every 1-3 hours) for 20-40 minutes.
6. Administer pain medication such as acetaminophen as needed for relief of pain as ordered.
7. Apply ice packs between feedings if engorgement is severe. Ice reduces edema.
8. Instruct patient to wear a supportive, non-binding bra, without an underwire.
9. Assist patient in use of electric breast pump if above techniques not effective, (or if infant in NICU, or unable to breastfeed). Avoid excessive use of electric pump, using pump only to relieve fullness so infant may latch. Excessive pumping can increase the milk supply and prolong engorgement.
10. Observe for signs of mastitis and sore nipples. Presence of fever > 101 degrees Fahrenheit, or breast redness, flu like feeling

E. DOCUMENTATION:

Document the following on the Postpartum Flow Record:
1. Presence of engorgement
2. Latch difficulty and/or breast pain
3. interventions made
4. Patient's response to interventions

Document the following on the Newborn Initial Assessment and Pt. Care Flow Record:
1. Latch difficulty
2. Length of feeding
3. Quality of sucking

VII. PLUGGED DUCTS

A. PURPOSE:

To outline management for lactating mothers with plugged ducts.

B. SUPPORTIVE DATA:

A blocked or plugged duct in the breast results in a tender area or painful lump. If left untreated this can lead to mastitis.

C. ASSESSMENT:

Mother will complain of tender lump in her breast. She will be afebrile, and systemic symptoms absent.

Obtain history to help determine reason for plugged ducts regarding:
-Skipped or delayed feedings
-One-sided breastfeeding
-Feeding only in one position
-Pressure from tight clothing, underwire bra, or baby carrier straps
-Pressure from hand supporting breast or nipple area
-Sleeping in one position

D. GENERAL MANAGEMENT:

Assess breasts and nipples.
Observe nursing.
Apply heat to affected area.
Use electric breast pump/manual expression to remove plug.
Position infant to facilitate removal of plug.
Instruct to return to Clinic if no improvement in 24 hours.
Contact physician or primary provider if temperature over 101 degrees F or if systemic symptoms present or unusual breast findings.

E. PATIENT INSTRUCTIONS:

Warm compresses several times a day, especially just prior to nursing, may relieve plugged ducts. Warm compresses may be made using small wash cloths to bath sized towels folded with very warm water wring out, and then placed on the affected area. Over the towels place a large plastic bag to keep the heat and warm air in. Other ways of providing heat to the breast are soaking the breasts in a large basin of warm water or bathtub.

Nurse frequently, or pump ever 2 hours until symptoms improve.

Gently massage prior to nursing and during nursing may help to clear the duct.

Nursing with the **infant's chin or nose** pointed towards the plugged duct or affected area helps by using the vigorous sucking to drain the area.

Pumping or expressing may relieve a plugged duct, or keep a breast from remaining full if the infant is not nursing vigorously. Hand expression or large hospital grade breast pumps are often most effective. The use of **pain medication is recommended** as needed. Plugging at the tip of the nipple can be quite painful.

Drink plenty of fluids. Inadequate fluid intake may prolong the plugs.

Avoid underwire bras, constricting bras, baby carrier straps that may be causing areas of the breast to retain milk. If patient has an **abundant supply of milk,** instruct to avoid those situations in which the infant stimulates a letdown with a few sucks, and then doesn't remove much milk from the breasts.

Rest. Plugged ducts seem to happen more when a mother has been more fatigued.

Chronic Plugged Ducts: may use Lecithin. 1 TBSP daily as an oil on salad or in granules sprinkled in cereal or yogurt (see package for directions). Lecithin can be purchased at a Health Food Store.

F. REPORTABLE CONDITIONS:

Contact with physician or health care provider when a patient report fever, or has systemic symptoms, or symptoms do not respond to usual treatment.

G. DOCUMENTATION:

Document visit on Lactation Consultation Form or Pt. Progress Note.

VIII. MASTITIS

A. PURPOSE:

To outline management for mothers with mastitis.

B. SUPPORTIVE DATA:

Early diagnosis helps prevent risk of abcess and recurrent mastitis.

C. ASSESSMENT:

1. Sudden onset flu-like symptoms: fever, aches, chills, extreme fatigue. (Usually occurs after 2 to 3 weeks postpartum.)
2. May have red "hot" tender areas on breast, will usually feel hard. Pain is usually in intense.
3. Usually occurs unilaterally.
4. Fever great than 101 degrees F.

D. GENERAL MANAGEMENT:

1. Antibiotics
2. Warm moist compresses to affected area followed by gentle message prior to each feeding.
3. Nurse frequently. Some babies may refuse to nurse on affected side due to increase in sodium drawn into the milk by the infection process. Mother will need to pump breasts with a hospital grade breast pump. Contact the Perinatal Social worker at the Vallejo Medical Center for rental information.
4. Instruct mother to rest, drink fluids to thirst and maintain proper nutrition.
5. Analgesia: Acetaminophen or Ibuprofen
6. Avoid risk factors predisposing to mastitis, engorgement/milk stasis due to missed feedings, constrictive
clothing, undue stress and fatigue and abrupt weaning.
7. Refer mother to lactation specialist for further assistance or questions.

E. DOCUMENTATION:

Document the following on appropriate portion of patient's chart:

- Antibiotics and analgesia• Compresses and breast massage
- Frequent pumping on nursing
- Patients instructions
- Referral to lactation specialist

REFERENCES:

Lawrence, R. Breastfeeding; A guide for Medical Profession, Stu, C.V. Mosly, St. Louis, MO, 1999.

IX. SORE NIPPLES

A. PURPOSE:

To outline nursing responsibilities in the management of sore nipples in the breastfeeding mother.

B. SUPPORTIVE DATA:

Some discomfort of the nipples during the early days of lactation is common. Pain during an entire feeding
is not normal and demands careful assessment, correction of causative factors, and referral if necessary.

C. ASSESSMENT:

1. Assess and inspect nipple and areola to determine possible cause and severity of trauma or irritation.
2. Assess positioning technique and latch to determine problems that may have caused soreness.

D. INTERVENTIONS:

1. Facilitate maternal comfort and relaxation using pillows and providing back support.
2. Correct positioning and latch if appropriate based on assessment. Nipple should be drawn well into the infant's mouth and the areolas tissue is compressed, leaving the nipple shape normal, and not distorted.
3. Stop infant and relatch if pain appears to be caused by infant's sucking technique.
4. Maintain breastfeeding during treatment unless condition is unusually severe. Ingestion of blood from bleeding nipples has not been shown to harm the infant.
5. Refer to Lactation Specialist any patient with unrelieved soreness or skin breakdown.

E. PATIENT TEACHING:

1. Advise mother to sit up straight while nursing, and support the breast as need, with the nipple pointing straight-ahead or slightly downward. Leaning back, hunching over, or pointing the nipple upward may cause the nipple to be abraded by the roof of the baby's mouth.
2. Advise mother to avoid soap, breast creams and ointments, unless instructed to do so. Hand expression of some of her milk on the nipple after feedings promotes healing. A modified lanolin cream applied sparingly may provide comfort and protection. It does not need to be washed off prior to feeding.
3. Teach mother how to massage the breast and hand express a small amount of breast milk before feedings for the following possible reasons:
• To stimulate the infant to begin to move the tongue correctly.
• To soften areola and facilitate infant grasping breast correctly.
4. Advise mother to offer baby the least affected side first.
5. Instruct mother to hand express a small amount of colostrum onto nipple after feeding. Colostrum should be massaged over surface of nipple and allowed to air dry. Purified lanolin cream may be used if need. (Avoid other OTC creams or medicines for nipples.)
6. Inform mother that varying the baby's position at the breast may help relieve discomfort.
7. Remind mother to gently break suction when removing infant from the breast, by gently inserting her finger between baby's lips and gums.
8. Inform mother that she may use acetaminophen for pain without harm to her baby.
9. Inform mother that prolonging the time between feeds may make the infant nurse more vigorously, and frequent feeding (every 1-3 hours) may actually help lessen soreness.

F. REPORTABLE CONDITIONS:

1. Report to MD any of the following:
• Suspected mastitis
• Suspected lesion of unknown origin
• Unusual discharge

G. DOCUMENTATION:

Chart the following on the Postpartum Flow Record:
• Observed trauma or irritation of nipple or areola
• Treatment recommended and response
• Referrals made

X. ALTERNATIVE FEEDING METHODS FOR BREAST FED INFANTS

A. PURPOSE:

To outline alternative feeding methods for term breast-fed infants who cannot breastfeed or who need a supplement to breastfeed. The nursing staff will ask the Lactation Educator/Consultant to instruct mothers in the use of these alternative methods.

B. SUPPORTIVE DATA:

Bottle-feeding is the most common form of alternate feedings but it had disadvantages. A baby does not have to open his mouth as wide when he takes a bottle and studies demonstrate that he uses his mouth and tongue differently during bottle feedings. Bottles can cause nipple confusion in a baby and weaken the suck of a baby who is not sucking well; therefore, alternative-feeding methods may be preferable.

C. CANDIDATES:

Infants who cannot or will not suck at the breast or a baby with a weak suck who has not improved by trying other suggestions.

D. INTERVENTION:

Explain all the options so the mother can choose the feeding method with which she is most comfortable. Explain that it takes some practice to learn how to feed a baby by any method and that within a few days she and her baby will have mastered it.

1. Feeding Syringe: A standard 10ml syringe.
   a) Begin by holding the baby as upright as possible. Suggest the mother sit the baby in her lap and tuck his chin down toward his chest to avoid choking.
   b) Put the syringe to the baby's mouth and gently drip the milk in. Allow baby to swallow before more
   milk is given. (The baby should not be sucking on the syringe.)
   c) Protect mother and baby's clothing from spills with towel or diaper.
2. Nursing Supplemented: When fed at the breast, the nursing supplementer allows baby to stimulate milk production while he receives the supplement.
   a) The nursing supplementer consists of a container for the supplement that hangs on a cord around the mother's neck and rests between her breasts.
   b) The tubing leading from the container is taped to the mother's breast extending about ¼" past the mother's nipple.
   c) Some models feature a tie off in the cap that prevents milk from flowing until the baby sucks. Other models come with different size tubing; the larger the tubing the faster the flow.
   d) The choice of tubing will depend on the effectiveness of the baby's suck and his need for supplements.
   e) If the baby will not or cannot take the breast, the feeding tube can be used to feed the infant by placing the tube alongside the pad of the index finger, and introducing it gently, pad side up, into the bay's mouth. When finger feeding, the baby uses his mouth and tongue properly so it will not confuse his suck in the way a bottle can.
   f) When finger feeding for a short time (several days), a 10ml syringe with a #5 feeding tube attached, can be used. The feeding tube is introduced gently into the mouth along side the index finger, pad side up. (The feeding tube can also be taped to the index finger.) The syringe plunger is slowly and gently pressed while the infant is suckling. This method is inexpensive and involves less paraphernalia than the nursing supplementer but special caution is advised to prevent milk aspiration by the infant.
   g) A 10-ml syringe and a #5 feeding tube can be gently introduced at the corner of an infant's mouth if he can latch onto the breast and suckle. The syringe plunger is then slowly and gently pressed allowing the infant to receive supplement while he suckles at the breast. If the infant has achieved a good latch and sufficient suckling he may control the flow of milk from the syringe himself. This method lacks the safety features of the supplementer feeder so special caution is advised to prevent aspiration by the infant.
   h) Before suggesting the nursing supplementer (either using the container or the syringe) discuss basic breastfeeding management. Improved breast feeding management will solve most breastfeeding problems.
   i) Weaning from the device has been an occasional problem if Mom has learned to use it as a crutch. Gradual weaning can be provided by putting less and less milk in the container each day so the baby can obtain milk from the breasts in increasing amounts. Careful anticipatory counseling should avoid this. A plan for nourishment with special equipment should avoid this. A plan for nourishment with special equipment should include a plan for weaning.
   j) Offer parents opportunity for return demonstration.
3. Starter Supplemental Nursing System
   a) Purpose: To outline basic set-up and management of the Starter Supplemental Nursing System (SNS)

b) Supportive Data:
Breastfeeding is a normal physiologic process that promotes infant and maternal wellness. The infant in some instances may need additional fluids or calories beyond the mother's initial supply, the mother may need more vigorous stimulation of her milk supply, or the infant may be unable to grasp the breast adequately or with enough negative pressure to breastfeed effectively. The SNS helps to improve maternal milk supply, provide supplemental feedings, or assist the infant at learning to become a competent breastfeeder. The SNS is used to avoid problems associated with early introduction of artificial nipples. In the postpartum period this temporary tube-feeding device helps to protect and assist in the establishment of breastfeeding.
c) Candidates: For Starter SNS Use:
• Infants who have sucking problems.
• Infants with hypoglycemia, at risk for hypoglycemia.
• Infants whose mothers have insufficient supply of colostrum or breast milk
• Premature infants
• Dehydrated infants, or infants at risk for dehydration.
d) Intervention:
• Explain device to parent(s).
• Place plastic ring with clip around bottom of bottle.
• Fill bottle with desired amount of formula or breast milk.
• Clip the bottle to the shoulder of mother's clothing. The bottom of the teat should be level with the mother's nipple.
• Tape tubing to breast using paper tape lengthwise along tubing from just above the end of the areola to about three inches above that. Placement on the nipple should allow about ¼ to and an inch of tubing to go beyond the end of the nipple. Tubing should enter infant's mouth about the center of the upper lip, so placement may vary with position used for holding.
• Position baby at the breast, holding fingers underneath the breast and the thumb gently keeping the tube in place.
• Unclamp tubing. When to unclamp the tubing may vary, to just before attaches to the breast, or after the infant has suckled for awhile. This will depend upon the reason for using SNS and the infant needs at the feeding.
• Flow may be adjusted by changing the level of the bottle of fluid.
e) Patient/Family Teaching:
• Instruct family thoroughly regarding the supplementer and indications for its use.
• Demo and return demo

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E. DOCUMENTATION:

Document the following on the Postpartum Flow Record:
• Type of supplement, amount of supplement, and breastfeeding assessment via the LATCH system
• Ability of infant to latch onto breast
• Feeding method used
• Volume of feeding ingested
• Response of infant to feeding
• Teaching done with parent including return demonstration
Document in the NICU/IMN Pt. Care Flow Record:
• Type and amount of supplement and how infant tolerated it.

REFERENCES:

American Academy of Pediatrics and American College of Obstetrics and Gynecology, Guidelines for Perinatal Care. Second Edition, 1988.
Lang, S., Clive, J., L'E Orme, R., Cup Feeding: An Alternative Method of Infant Feeding, 1994, Archives of Disease In Childhood, 71:365-369.
Lawrence, R. Breastfeeding: A Guide for the Medical Profession. Fourth Edition, Mosby, 1994
McCoy, R., Meier, P., et al, Nursing Management of Breast Feeding for
Pre-Term Infants. J. Perinatal Nursing, 1988: 2(1): 42-55
Mohrbacher, N and Stock, J. The Breasfeeding Answer Book, Fifth Printing, 1995.
Newman, J. "Fingerfeeding." OB-GYN net Publication Breastfeeding 101. Newman, 1999.
Riordan J. and Auerbach K., Breastfeeding and Human Lactation. 1st Edition, 1998.
Stine, M. J. , Breastfeeding the Premature Newborn: a Protocol Without
Bottles. J. Human Lactation 1990: 6:(4): 167-170
World Health Organization Bulletin, Infant Feeding: The Physiological Basis 1991